August 12, 2004

Administrator
US EPA
PO Box 1473
Merrifield, VA 22116

Attn: Chemical Right-to-Know Program

RE: HPV Chemical Challenge Program, AR-201

Dear Administrator,

This letter is submitted by Eastman Chemical Company ("Eastman") in response to comments received from the Environmental Protection Agency ("EPA") dated May 28, 2004 following EPA's review of the test plan and robust summaries for the chemical N-ethyl-N-(3-methylphenyl)aminoacetonitrile (CAS No.: 63133-74-4) as part of Eastman's commitment to the US EPA HPV program. I would like to thank the EPA for its review and have provided more information, as requested by the EPA, to support our belief that this material meets the requirements of a site limited closed-system intermediate (CSI) and as such is subject to limited testing (Attachment I).

Summary of EPA Comments

1. The EPA noted in their review that an ethyl group was missing from the structure on page 2 of our test plan.

This has been corrected in the new test plan that is attached.

2. The EPA noted in their review that the partition coefficient, melting point, and boiling point data provided by the submitter are adequate for the purposes of the HPV Challenge Program, but that the submitter needs to provide measured vapor pressure, and water solubility data for this chemical.

The data submitted by Eastman for these two endpoints was derived by EPIWIN modeling and is believed to fulfill the physicochemical endpoints. This conclusion is based on the statement in the EPA document entitled The Use of Structure-Activity Relationships (SAR) in the high Production Volume Chemicals Challenge Program which reads "In the event that neither measured data nor reference book values are available, estimations using and appropriate model will be accepted for all physicochemical endpoints."

3. The EPA requested Eastman recalculate our fugacity estimations based on the new physical-chemical data were requested to obtain.

Eastman believes that because the current physical-chemical data are sufficient for the purposes of the US HPV Challenge Program the fugacity modeling estimations as currently summarized in the robust summaries are believed to be of sufficient accuracy.

4. The EPA had no comments on the ecotoxicity endpoints.

5. The EPA requested we submit a robust summary on the results of the OECD 421 study Eastman completed to asses developmental and reproductive toxicity.

Eastman has modified the robust summaries to include the results of this study.

Eastman looks forward to hearing back from the Agency on whether the new information we have provided fulfills their needs in order to conclude that this chemical is a site-limited CSI and does not require further testing. The HPV registration number for Eastman Chemical is 1100266. This same information has also been sent to the Agency by email (oppt.ncic@epa.gov, chem.rtk@epa.gov).

Sincerely,

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Eastman Chemical Company

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EASTMAN

ATTACHMENT I

Eastman Chemical Company, submitted a test plan and robust summaries to EPA on December 9, 2003 for *N*-ethyl-*N*-(3-methylphenyl)aminoacetonitrile (EMAA; CAS# 63133-74-4). In that submission Eastman included documentation that demonstrated this material to be a closed-system intermediate (CSI) that should be eligible for reduced testing. The EPA reviewed this submission and raised the following concern:

> "EPA cannot fully evaluate the submitter's claim (Appendix 1 of the submission) that the sponsored chemical is a CSI and thus eligible for the reduced testing rationale in the HPV Challenge Program. The submitter did not include monitoring data showing that the chemical is not detected in any environmental medium after treatment or, in the absence of monitoring data, the basis for believing that the chemical has not been released. Specifically, the submitter states that all aqueous waste containing the sponsored chemical is directed to an on-site wastewater treatment (WWT) facility. Furthermore, at least 12 pounds of the chemical per batch (12,000 pounds/year) is discharged to the WWT facility. The submitter needs to supply information on the quantities measured or estimated to be in the final effluent, sludge or other wastes from the WWT facility, or in the absence of such data, the basis for believing that the chemical has not been released following wastewater treatment and that exposure does not occur."

Upon consideration of these concerns, Eastman Chemical Company still believes EMAA qualifies as a CSI based on several reasons. First, it should be noted that the *de minimis* quantities of EMAA wastewaters which may be directed to Eastman's industrial wastewater treatment facility are aggregated with an average of 25,000,000 gallons of other wastewater streams from the Tennessee Operations manufacturing facility every day. Thus, based on an average daily influx of 32.9 pounds/day, its concentration prior to any of the potential anticipated removal processes is an approximate 0.16 ppm. These wastewaters are directed to an acclimated, aggressive aeration, activated sludge wastewater treatment facility that provides a hydraulic retention time of 1.5 days allowing for substantial mixing and contact time with the approximated 500-700 dry tons of bio-solid material present in our WWT facility. This facility operates in compliance with a National Pollutant Discharge Elimination System (NPDES) discharge permit which includes chemical specific numeric and qualitative effluent limitations. Because it is not possible to specify a numeric for all chemicals and because some chemicals may exist in the effluent but below analytical detection abilities, this NPDES permit also includes both chronic and acute biomonitoring testing of the effluent as the ultimate test of potential effluent toxicity. The permit specifies conditions under which the tests are to be conducted and defines acceptable chronic and acute toxicity levels for two aquatic species, *Ceriodaphnia dubia* and *Pimephales promelas*. This facility is in full compliance with all

NPDES requirements including the biomonitoring requirements further demonstrating that effluent toxicity issues from any source are not a concern for this facility's effluent.

In addition, all biosludge wasted from the wastewater treatment system is combusted in high-pressure, high-temperature industrial boilers which operate in compliance with RCRA standards as specified in 40 CFR 266 Subpart H and Clean Air Act Standards. These units are required to achieve 99.99% organic destruction\removal efficiency and are equipped with carbon monoxide continuous emissions monitoring systems to ensure adequate combustion for destruction of organics. Clearly, any EMAA which may be present on biosludge would be completely consumed in these boilers in the management of the biosludge. EMAA has an estimated partition coefficient (Log K_{ow} = 2.73) that would suggest this material will adsorb to the bio-solids and EPIWIN fugacity modeling programs predict such a likely fate. Material not absorbed onto solids is also subject to degradation by both photo-oxidative and biodegradation mechanisms. The predicted half-life from photo-oxidation is 0.6 hours. Both processes will work to further decrease the already extremely low quantity of EMAA present in the WWT facility and potentially present in its effluent.

Eastman believes the above rationale in conjunction with the documentation already provided fully support our conclusion that the material should be classified as a CSI with no exposure.